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Dear Educator,

Tallgrass Prairie National Preserve is pleased that you and your class are scheduled to be with us for an Education Day at the one-room schoolhouse on the Preserve. Park Rangers and Volunteers will conduct the program activities and lessons on the following pages.

Our goal is to have the students experience history by participating in the methods and the environment of learning in a typical day of a rural school circa 1884, the year classes were first held at Lower Fox Creek School. Children will wear period clothing, walk to school and use some of the tools used in those earlier times. Period clothing and learning materials will be provided by the National Park Service. For a full-day session, a sack lunch should be provided by the school district. Period lunch pails will be provided.

During the day students will use copybooks for some of their written work. Making the copybooks in the home classroom will help children learn about the necessity of conserving paper in the nineteenth century and will provide a personalized souvenir for each child. Enclosed are materials and instructions for completing the copybooks. Please have the copybooks completed before coming to the Preserve. If this presents a problem, please let the park know two weeks before your arrival and we will have the copybooks ready for your session. Some educators prefer to make the copybooks as a class project with the children.

Attached for your review prior to the day of the trip are the following:

1. Schedule
2. What to Bring
3. Rules for Children
4. A Few Tips
5. Why Slates and Copybooks (including instructions for making)
6. Lesson Plans

Note that this year we have more closely aligned our exercises to meet many of the Kansas State Board of Education standards. We are doing real class work to meet current standards in a historical manner and in a historical setting. The chart preceding the Lesson Plans denotes current Kansas curriculum based standards addressed by these lessons. This booklet is for your review, so you and your class will be better prepared for this fun and educational experience.

Finally, Activity Sheets A-1 through A-4 which follow the Lesson Plans are extensions of the basic lessons and are intended as optional post-visit activities for your students.

Sincerely,

Tallgrass Prairie National Preserve



Schedule

<u>Time</u>	<u>Activity</u>
9:00	Arrive at Barn; Dress in period clothing, put lunch in pails
9:20	Begin walk to school through prairie; Lesson #1 (Nature Walk); Complete outside before entering school
10:15	Group pictures in front of school; Bathroom Break
10:30	Opening Exercises (Pledge, Memory Gem) inside school
10:45	Lesson #2 (Reading)
11:30	1880s School Life (Superintendent)
11:45	Lesson #3 (Math)
12:30	Lunch/Recess/Bathroom
1:15	Lesson #4 (Spelling)
2:00	Music
2:15	Lesson #5 (Writing)
2:45	Depart for home (have bus come to LFCS)



What to Bring to Lower Fox Creek School

For an all day Education Day experience each participant should bring:

1. Outdoor clothing appropriate for the weather. (Period costumes – see notes below.)
2. A sack lunch with foods appropriate for the date represented provided by each respective school district (sandwich, fruit, vegetables, cookie).
3. A bottle of drinking water to be consumed with lunch. (No milk!)
4. A plain pencil – not fancy or glittery. (No ballpoint pens or markers!)
5. The copybook (see page 6) or notebook paper.

Recommended items for teachers to bring:

1. Additional drinking water (one or two gallons) and paper cups.
2. Baby wipes for cleaning hands.
3. Garbage bags for trash removal.
4. A cell phone for use in case of emergency.
5. Lesson plans, etc. (Craft supplies and playground equipment are optional.)

Lower Fox Creek School Provides:

1. Use of the school grounds, building, and privies.
2. Facsimile textbooks, slates and slate pencils.
3. Appropriate seating for eighteen children and one adult.
4. Portable toilets.
5. A fire extinguisher.
6. A first aid kit
7. Broom & dustpan.
8. A guest book for all visitors to sign.
9. Period costumes consisting of sunbonnets and pinafores for the girls and shirts and vests for the boys.
10. Metal lunch pails for the lunches.

Notes:

- As we are still in the beginning stages of creating costumes, we ask that the children wear some appropriate items from home. For boys, please wear jeans, long sleeve, button up the front shirts, and cowboy boots if they have them already. Please do not go out and buy any clothing items just for this experience. This is not meant to cost the parents anything extra. If boys have cowboy hats, they can also wear them as well.
- For girls, please wear a long sleeve shirt, as their pinafores will cover the main portion of the shirt. Since the park won't be providing dresses this year, the girls need to wear jeans or pants along with their shirts.



Rules for Children at Lower Fox Creek School

1. The general rules of the visiting school are in effect as always.
2. Children enter the school when the teacher gives permission, not before.
3. Coats and hats belong on the hooks on the wall.
4. Lunches may be placed on the shelves or the floor of the cloakroom as space permits.
5. Children should not bring backpacks to Lower Fox Creek School (leave on the bus).
6. Only the teacher or assistant may ring the bell.
7. No gum is permitted inside the building.
8. The facsimile textbooks are for reading only. Written work must be done on the slate with slate pencil or in the copybook. Please – no writing in books.
9. After using the privy, dispose of toilet paper in the pit. Clean hands with the baby wipes provided by the teacher inside the school. Dispose of baby wipes in the trash, not in the privy. Hand-sanitizer is provided in the port-a-johns.
10. Please leave the building as clean or cleaner than you found it.
11. Please do not wander off into the prairie or cross the highway.

A Few Tips for the Teacher and Accompanying Adults

1. There are no interior lights.
2. There is no heat.
3. Behind the main (northeast) door to the classroom are the first-aid kit, paper towels, broom and dust pan.
4. The fire extinguisher is behind the same door to the classroom.
5. An adult may open the windows. Be sure to close the windows before leaving.
6. The wood-burning stove is non-operational. Do not attempt to build a fire in it under any circumstances! Please do not lean on the stove or stovepipe.
7. All outdoor play must be supervised. Keep children inside the fenced area, but off of the fence, rock walls, pump, etc.
8. Should you and the children leave the building grounds for part of the day, notify a Park Ranger.
9. Dial 911 on your cell phone in case of emergency and notify the Park Ranger.
10. No Smoking in trail or school area.



Why Slates and Copybooks?

Before the middle of the twentieth century, paper was a precious commodity reserved for important governmental, business, and scholarly functions. Costly to produce and difficult to ship, paper products were simply too expensive to be used indiscriminately in public schools. Therefore, most seatwork was done with slate and slate pencil. The slate would be checked at recitation time, wiped clean with a soft rag, and then reused for the next study session. The slate pencil, not to be confused with the chalk used on the chalkboard, is a slender rod of pressed clay held like a wooden pencil. Although the slate pencil breaks easily under pressure, it is popular with visitors reenacting a day in a one-room school.

The copybook, pen, and ink were reserved for more permanent work in the last and previous century. The teacher would write a line, perhaps of spelling words or arithmetic problems, in the scholar's copybook, and the scholar would then copy the material repeatedly until the work was committed to memory. This form of rote learning, now deemed as punitive, was then common practice. Juvenile pranks, perhaps born out of boredom and involving the ink well, abound in the folklore of the one-room school. Nevertheless, the use of the copybook can be a valuable part of the school day, and the book itself becomes a souvenir for the youthful visitor. (An eraser-less pencil is recommended rather than pen and ink since pencil is less likely to damage either persons or artifacts.)

Traditionally, copy books were made by hand using pen knife, darning needle, linen thread, and cut paper. Today, the same effect can be achieved using a paper punch, waxed cotton thread or dental floss, and two weights of legal sized paper. The heavier weight stock makes the cover to the copybook; the lighter weight stock makes the pages on which to write.

Goal: To make a copybook.

Materials:

- Three or four sheets of light to medium weight legal sized copy paper for each book.
- One sheet of heavier legal sized copy paper for each book.
- Waxed thread (cotton or linen) or waxed dental floss.
- Broad winged paper punch or darning needle.

Procedures:

1. Select a design for the cover. Include a line for the student's name.
2. Lay out the cover design horizontally, with the back cover to the left and the front cover to the right.



<p>(Back of Copybook Cover)</p> <p>(Your School and Copyright Date)</p>	<p>*****</p> <p>FRONT OF COPYBOOK</p> <p>(Optional Picture or Design)</p> <p>_____</p> <p>(Student's Name)</p> <p>*****</p>
--	---

3. Using the heavier of the two legal sized paper stocks selected for the cover, photocopy the cover design for each book to be made.
4. Take three sheets of the lighter weight stock for each copybook. Fold each horizontally precisely in half. Do this separately for each sheet so that the creases will be sharp and the pages precisely divided.
5. Measure precisely one-quarter, one-half, and three-quarters of the way down along the crease of one of these pages. Lightly mark these points with pencil.
6. Place all sheets, including the cover, together with the pencil markings facing you.
7. Use a paper punch or darning needle to produce symmetrical holes where the measured marks are located.
8. Take a length of thread or dental floss about twenty-four inches long. Run it from the middle hole of the page side of the copybook through to the cover side. Leave about six inches hanging inside the book.
9. Run the thread from the cover side through the top hole to the page side.
10. Pass the thread back through the middle hole to the outside of the cover.
11. Pass the thread through the bottom hole from the cover through to the page side of the book.
12. Pick up the excess thread left hanging on the inside and tie a simple square knot to secure the thread.
13. Trim excess thread if desired.



	<ul style="list-style-type: none">○ 2. Pass thread through from outside back, then from inside through #1 again.○ 1. Start thread here from inside. Leave a few inches inside.○ 4. Tie a square knot with excess thread.○ 3. Pass thread through from outside.
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Product Evaluation:

Use the copybooks and pencil during your day at Lower Fox Creek School. Each scholar should keep his or her own copy as a memento.

(Thanks to Storowtown Village Museum, West Springfield, Massachusetts, Nancy Powers and Ann Haverstock of Geneva, Illinois for ideas on copybook design.)



Kansas State Curriculum Standards, 4th Grade

<u>Language Arts</u>	Standard	Benchmark	Lesson #	1	2	3	4	5
Reading	1	1	→→→→→					
	1	2	→→→→→		◆			
	1	3	→→→→→					
	1	4	→→→→→		◆			
Literature	2	1	→→→→→					
	2	2	→→→→→					
Writing	3	1	→→→→→					
	3	2	→→→→→					
	3	3	→→→→→					
	3	4	→→→→→					
	3	5	→→→→→					
	3	6	→→→→→					
	3	7	→→→→→					
	3	8	→→→→→				◆	◆
	3	9	→→→→→					◆
Research	4	1	→→→→→					
	4	2	→→→→→					
<u>Math</u>	Standard	Benchmark	Lesson #	1	2	3	4	5
	1	1	→→→→→					
	1	2	→→→→→			◆		
	1	3	→→→→→					
	1	4	→→→→→			◆		
	2	1	→→→→→					
	2	2	→→→→→					
	2	3	→→→→→					
	2	4	→→→→→					
	3	1	→→→→→					
	3	2	→→→→→					
	3	3	→→→→→					
	3	4	→→→→→			◆		
	4	1	→→→→→					
	4	2	→→→→→					



Kansas State Curriculum Standards, 4th Grade, continued

<u>Science</u>	Standard	Benchmark	Lesson #	1	2	3	4	5
Science as Inquiry	1	1	→→→→→					
Physical Science	2	1	→→→→→					
	2	2	→→→→→					
	2	3	→→→→→					
	2	4	→→→→→					
Life Science	3	1	→→→→→	◆				
	3	2	→→→→→					
Earth and Space Science	4	1	→→→→→	◆				
	4	2	→→→→→	◆				
	4	3	→→→→→					
Science and Technology	5	1	→→→→→					
	5	2	→→→→→					
	5	3	→→→→→					
Science in Personal and Environmental Perspectives	6	1	→→→→→					
	6	2	→→→→→					
History and Nature of Science	7	1	→→→→→					
<u>Environmental Education</u>	Standard	Benchmark	Lesson #	1	2	3	4	5
	1	1	→→→→→	◆				
	1	2	→→→→→					
	2	1	→→→→→	◆				
	2	2	→→→→→	◆				
	2	3	→→→→→					
	3	1	→→→→→					
	3	2	→→→→→					
	3	3	→→→→→	◆				
	3	4	→→→→→					
	4	1	→→→→→					
	4	2	→→→→→					
	5	1	→→→→→					
	5	2	→→→→→					
	5	3	→→→→→					
	5	4	→→→→→					



Kansas State Curriculum Standards, 4th Grade, continued

<u>Social Studies</u>	Standard	Benchmark	Lesson #	1	2	3	4	5
Civics and Government		1	→→→→→					
		2	→→→→→					
		3	→→→→→					
		4	→→→→→					
		5	→→→→→					
Economics		1	→→→→→					
		2	→→→→→					
		3	→→→→→					
		4	→→→→→					
		5	→→→→→					
Geography		1	→→→→→			◆		
		2	→→→→→	◆				
		3	→→→→→					
		4	→→→→→					
		5	→→→→→					
Kansas History		1	→→→→→					
		2	→→→→→					
		3	→→→→→					
		4	→→→→→					
		5	→→→→→					
U.S. and World History		1	→→→→→					
		2	→→→→→					
		3	→→→→→					
		4	→→→→→					◆



Kansas State Curriculum Standards, 4th Grade, continued

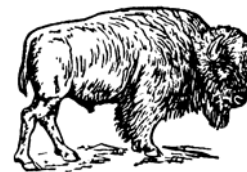
<u>Communications Skills</u>	Standard	Benchmark	Lesson #	1	2	3	4	5
Listening		1	→→→→→	◆	◆	◆	◆	
		2	→→→→→	◆	◆	◆	◆	
		3	→→→→→	◆	◆	◆	◆	◆
		4	→→→→→	◆	◆	◆	◆	◆
		5	→→→→→			◆		◆
		6	→→→→→	◆	◆	◆	◆	◆
Viewing		1	→→→→→	◆	◆	◆	◆	◆
		2	→→→→→		◆			
		3	→→→→→	◆				
		4	→→→→→					
		5	→→→→→	◆				
Speaking		1	→→→→→					
		2	→→→→→	◆	◆	◆	◆	◆
		3	→→→→→	◆				◆
		4	→→→→→	◆	◆	◆	◆	◆
		5	→→→→→	◆	◆		◆	
		6	→→→→→	◆	◆	◆	◆	
Information Retrieval		1	→→→→→					
		2	→→→→→					
		3	→→→→→					
		4	→→→→→					
Media Products		1	→→→→→					
		2	→→→→→					
		3	→→→→→					◆



A Prairie Walk To The Past

Subjects: Social Studies, Science, Environmental Education

Grades: 4th Grade



Kansas State Curriculum Standards Met: 4th Grade as follows

Social Studies

- Geography, Benchmark 2 – The student analyzes the spatial organization of people, places and environments that form regions on Earth's surface.

Science

- Standard 3, Benchmark 1 – All students will develop a knowledge of organisms in their environment.
- Standard 4, Benchmark 1 – All students will develop an understanding of the properties of earth materials.
- Standard 4, Benchmark 2 – All students will observe and describe objects in the sky.

Environmental Education

- Standard 1, Benchmark 1 – Learners explore the processes that shape the earth.
- Standard 2, Benchmark 1 – Learners investigate organisms and habitats.
- Standard 2, Benchmark 2 – Learners identify characteristics that help organisms live in their environments.
- Standard 3, Benchmark 3 – Learners explore the relationships among resources, technology and the environment.

Duration: 30-45 minutes

Group size: 18 (the maximum number of students that can fit inside the Lower Fox Creek Schoolhouse)

Setting: Outdoors

Opening: Today we are going for a walk back in time, a walk much like students on the prairie would have taken to get to school. While we are on the walk, we will talk about our environment, how the Flint Hills were formed and the characteristics of the animals that inhabit the prairie.

Objectives: The students will be able to describe their environment in terms of climate, formation and how people and animals have adapted to it, while gaining an appreciation for how life was different in the 1880s.

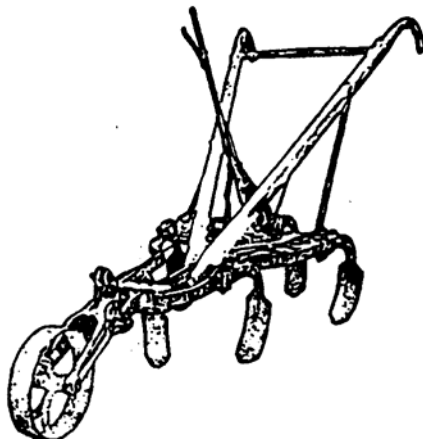
Materials: No materials are required but students should keep their eyes open for the different things to be seen and their minds open to learning.

Background: The tallgrass prairie is a unique part of our country and a home to many birds and other animals. Students in the 1880s probably spent a lot more time outdoors than today's students and may have been better educated about their environment.

Procedure:

The students will walk through the prairie to the Lower Fox Creek School as students did for many years before schools were consolidated in the city and prior to busses and automobiles. The students will make three (3) stops along the way to discuss science topics.

1. The first stop will be to discuss the **geologic history** of the area and how fossils provide evidence of plants and animals that lived long ago. A fossil is part of a once-living organism or a trace of an organism preserved in rock. Fusilinids – fossils shaped like wheat grains – can be seen in many of the limestone blocks used for building on the Preserve.
 - a. Discuss alternating beds of limestone and shale formed 250 – 300 million years ago during the Permian Period (covered by a sea).
 - b. The hills are shaped by the rocks that lie directly beneath the vegetation and soil. The shale is softer than limestone and has eroded over time.
 - c. The rocks made cultivation difficult and led to today's ranching culture.
 - d. Most cultivation is limited to river and stream bottoms, such as Fox Creek, just east of us. Why do you think that is? There the bedrock is covered by a layer of river-deposited sediments that have developed thick soils valuable for cultivation.
2. The second stop will be to observe the sky and discuss how **weather affects the environment**.
 - a. Humid climates support forests.
 - b. Dry climates support deserts.
 - c. Grasslands require a moisture level somewhere in between (annual precipitation averaging 10-39 inches). Who can tell me how much average rainfall we get each year here in Chase County? (30-35 inches annually)
 - d. Why are grasslands important? They cover about $\frac{1}{4}$ of the earth's surface (on every continent except Antarctica). Almost all our food comes from grasses, either directly or indirectly (meat producing animals eat grass leaves which we can't digest). Who can name some grasses (wheat, rice, corn, oats)?
 - e. What has happened to the prairies over time? (Plowed)





3. The third and last stop before arriving at the School will be to discuss **grassland animals** and how they have adapted to their environment.
 - a. First of all, what environment do grassland animals find themselves in? (above ground provides few hiding places (few trees), fire danger, weather extremes)
 - b. What are some characteristics of grassland animals then? (Burrowing: prairie dogs, ground squirrels, pocket gophers [tunnels up to 100 feet long]; Running: swift fox [25mph], coyote [40mph], pronghorn antelope [70mph]); open spaces favor animals with good vision: hawks and eagles).
 - c. Where do many birds nest? On the ground, out of necessity. Who can tell me an adaptive behavior of some birds to protect their young? (faking injury and leading predator away).

This activity can be adapted to a classroom by taking an imaginary walk. The instructor can set the stage by making it into a story format, for example “then we continued down the hot trail and behind a tree we saw....”

Closure: Today we experienced a small example of how earlier students had a more difficult time in getting to school. While travelling through the prairie we talked about how the land was formed, about what evidence still remains from earlier times and how organisms adapted to their environments.

Evaluation: The teacher is able to evaluate the students in the field by listening to responses to questions during the walk to school.

Extensions:

1. The students may want to draw a picture of an animal found on the prairie and an animal not found on the prairie. These pages could be collected and put in a book for the class to pass around and share during free time or indoor recess. (see Activity Sheet A-1)
2. Compare how people and other living organisms get food, seek shelter and defend themselves. (see Activity Sheet A-2)
3. What do you think this area will look like in 100 years? What factors will determine this?



The Memory Gem

Goals: One of the purposes of American public education has always been instruction in social values, morals, and healthy practices. Today such instruction often takes the form of social studies or "wellness" classes. In the day of the one room school it typically belonged in the part of the day dedicated to copy work and recitation. For a modern class visiting the one room school, such copy work also acquaints students with the use of slate and slate pencils.

Materials:

- Sample memory gems are scattered throughout the various levels of the *McGuffey's Eclectic Readers*, including "How Doth the Little Bee," (*Second Eclectic Reader*, p. 48), "Beware of the First Drink" (*Third Eclectic Reader*, p.111) and "Try, Try Again" (*Fourth Eclectic Reader*, p. 28).
- Others can be taken from poetry anthologies, volumes of famous quotations, or philosophic texts, such as Emerson's "Self Reliance."
- Slate and slate pencils, chalk and chalkboard.

Procedures:

- For the memory gem exercise the teacher writes a single short passage or poem on the chalkboard before the students arrive in the morning. This will give students opportunity to read the memory gem upon entering the classroom. Potential "gems" are below.
- Following the Pledge of Allegiance, the teacher asks the students to retrieve their slates and rag erasers from their desks.
- A volunteer can distribute slate pencils to anyone who does not already have one.
- Next, the students copy the memory gem exactly as it appears on the chalkboard without breaking the slate pencil. Do this one sentence at a time to fit onto slates.
- Later in the day students will recite the gem from memory.

The Song of the Bee

Buzz! buzz! buzz!
This is the song of the bee.
His legs are of yellow;
A jolly good fellow,
And yet a great worker is he.

or

Try, Try Again

'T is a lesson you should heed,
Try, try again;
If at first you don't succeed,
Try, try again;
Then your courage should appear,
For, if you will persevere,
You will conquer, never fear;
Try, try again.

or

If you find your task is hard,
Try, try again;
Time will bring you your reward,
Try, try again;
All that other folks can do,
Why, with patience, should not you?
Only keep this rule in view:
Try, try again.

Reading

Subjects: Reading

Grades: 4

Kansas State Curriculum Standards Met: 4th Grade as follows

Reading

- Standard 1, Benchmark 2: The student reads fluently.
- Standard 1, Benchmark 4: The student comprehends a variety of texts.
- Standard 1, Benchmark 4: The student distinguishes between fact and opinion in various types of appropriate-level texts.



Duration: 30-45 minutes

Group size: 18 (the maximum number of students that can fit inside the Lower Fox Creek Schoolhouse)

Setting: Indoors

Opening: Today we are going to practice our reading skills using the reading books that were available to students in 1884. These were called McGuffey Readers. We may learn some new words. We will also work on comprehension of what is read.

Objectives: The students will be able to use basic reading skills to identify words and to comprehend ideas.

Materials: McGuffey's Eclectic Readers appropriate to grade level (Third and Fourth Readers), copybooks and pencils.

Background: For this activity we are using reading materials used in a typical one-room schoolhouse in the 1880's.

Procedure:

1. Provide students with a short paragraph of narrative or expository text with all punctuation removed. Students study the piece of text with a partner and add the punctuation that would make the text read fluently. Pairs compare with other pairs. Then the teacher directs class discussion about the importance of punctuation and sentence structure in fluency.



Narrative (from McGuffey's Third Reader, page 42 "The Wolf"):

a boy was once taking care of some sheep not far from a forest near by was a village and he was told to call for help if there was any danger one day in order to have some fun he cried out the wolf is coming the wolf is coming the men came running to destroy the wolf as they saw nothing they went home again and left john laughing as he had had so much fun this time he cried out again the next day the wolf the wolf the men came again but not as many as the first time again they saw no wolf so they shook their heads and went back on the third day the wolf really came john cried help help the wolf the wolf but not a single man came to help him the wolf killed johns sheep then he felt very sorry that he had deceived his friends and neighbors and grieved over the loss of his pet lamb

As it should be:

A boy was once taking care of some sheep, not far from a forest. Near by was a village, and he was told to call for help if there was any danger.

One day, in order to have some fun, he cried out, "The wolf is coming! the wolf is coming!"

The men came running to destroy the wolf. As they saw nothing they went home again, and left John laughing.

As he had had so much fun this time, he cried out again, the next day, "The wolf! the wolf!"

The men came again, but not as many as the first time. Again they saw no wolf; so they shook their heads, and went back.

On the third day, the wolf really came. John cried "Help! Help! the wolf! the wolf!" But not a single man came to help him.

The wolf killed John's sheep.

Then he felt very sorry that he had deceived his friends and neighbors, and grieved over the loss of his pet lamb.

2. Have the students take turns reading aloud selections from McGuffey's Third Reader such as Lesson II "Johnny's First Snowstorm" (page 15) or Lesson XLIX "Deeds of Kindness" (page 128).

Closure: During this lesson we practiced our reading skills. We learned that punctuation is important to making written words easy to read and understandable.

Do you think you would be a better or worse reader than you are today if you went to this school with Lutie in 1884?

Evaluation: The teacher will be able to review the written work and hear how the students are reading.

Extensions:

1. Divide a poster board (or sheet of paper) into two columns. On one side students will write words which represent opinions regarding controversial historical issues. On the other side, students will write words which represent historical facts. Once this process is complete, students will share their work with other classmates.

Potential Topics: Women's Right to Vote; Slavery



Cowboy Math



Subjects: Math, Social Studies

Grades: 4

Kansas State Curriculum Standards Met: 4th Grade as follows

Math

- Standard 1, Benchmark 2: The student demonstrates an understanding of whole numbers with a special emphasis on place value.
- Standard 1, Benchmark 4: The student models, performs and explains computation with whole numbers.
- Standard 3, Benchmark 4: The student relates geometric concepts to a number line.

Social Studies

- Geography, Benchmark 1: The student uses maps ...

Duration: 30-45 minutes

Group size: 18 (the maximum number of students that can fit inside the Lower Fox Creek Schoolhouse)

Setting: Indoors

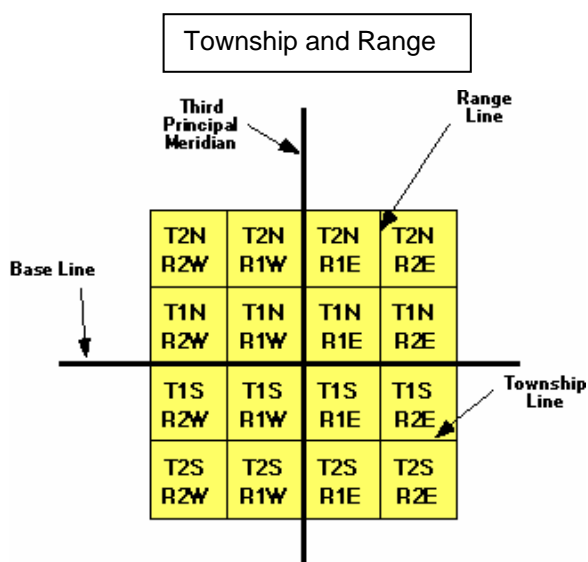
Opening: Today we are going to put our basic math skills to use solving problems that cowboys in Mr. Jones' time worked on and that today's cowboys and cowgirls still need to solve.

Objectives: The students will be able to solve real world problems that involve distance and location using coordinate planes and map grids with positive whole numbers and letter coordinates and giving and following directions to move from one location to another.

Materials: Drawing of Tallgrass Prairie National Preserve pastures and ruler.



Background: At the time Stephen F. Jones assembled his ranch in the 1880 time period, Kansas had been a state for only about 20 years. Before Kansans like Stephen Jones could legally acquire title to land, the Federal Government had to survey the land. The Government established base lines and sent people out to measure and divide up the state into townships and ranges. The townships were six miles square and they were further divided into 36 one square mile parcels of 640 acres called sections. Mr. Jones assembled his ranch of 7,000 acres in Townships 18 and 19 south of Range 8E.



Sections
36 sections = 1 Township (yellow area)

35	36	31	32	33	34	35	36	31	32
2	1	6	5	4	3	2	1	6	5
11	12	7	8	9	10	11	12	7	8
14	13	18	17	16	15	14	13	18	17
23	24	19	20	21	22	23	24	19	20
26	25	30	29	28	27	26	25	30	29
35	36	31	32	33	34	35	36	31	32
2	1	6	5	4	3	2	1	6	5

One Section = 640 acres

NW 1/4 of NW 1/4	NE 1/4 of NW 1/4	NE 1/4 =160 acres	
SW 1/4 of NW 1/4	SE 1/4 of NW 1/4		
N 1/2 of SW 1/4		W 1/2 of SE 1/4	E 1/2 of SE 1/4
S 1/2 of SW 1/4			



Procedure:

- Using Tallgrass Prairie National Preserve Map (see Activity Sheet A-5) with a coordinate grid superimposed over the map and with the origin (the point where the x axis and the y axis cross) at the intersection of the township and range lines at the left side of the page, answer the following questions:
 - Mr. Jones is at point A (0,0) and wants to get to the schoolhouse (point B), how many units up (north) and over (east) does he travel? (answer: 9 and 4)
 - What is his new grid location at B (coordinates)? (9,4)
 - If Mr. Jones then moves 10 units south and 10 units east from point B, he ends up in the middle of what section? (answer: section 10)
 - How much farther west east does he have to go to get to the edge of the Preserve? Is it $\frac{1}{4}$ mile, $\frac{1}{2}$ mile or 1 mile? (answer: $\frac{1}{2}$ mile)
- Approximately how many miles long is the Preserve on its west boundary? (answer: 6 miles)
- Each section is divided into 16ths (lots). How many acres are in these lots? (answer: 40)
- If a section is one mile square, how far do you travel if you walk straight across one lot? (answer: $\frac{1}{4}$ mile)
- Mr. Jones stocks his ranch with cattle. Answer questions a and b below:
 - How many acres does Mr. Jones use for one (1) head of cattle? (answer: 2.5 acres)
 - How many cattle can Mr. Jones put on Tallgrass Prairie National Preserve, which is approximately 10,000 acres? (answer: 4,000)

Cattle	1	2	4	40	400	(4,000)
Acres	a. (2.5)	5	10	100	1,000	b. 10,000



Now, how many of them critters can I fit on my ranch?

Closure: During this lesson we learned about the first survey of Kansas and how that affected the physical appearance of the land. The land is divided into endlessly repeated squares. Roadbuilding and farming generally follow these original patterns. How many children have parents that are ranchers or farmers? Do you hear your parents talk about these types of subjects?

Evaluation: The teacher is able to evaluate the students as they answer questions.

Extensions:

- Would a map like this have been available to Mr. Jones? Why?
- Answer geography questions on maps of the United States (Activity Sheet A-3) and Kansas (Sheet A-4).



Spelling



Subjects: Spelling

Grades: 4

Kansas State Curriculum Standards Met: 4th Grade as follows

Language Arts

- Standard 3, Benchmark 8 (Indicator 4): The student correctly spells commonly used words.

Duration: 30-45 minutes

Group size: 18 (the maximum number of students that can fit inside the Lower Fox Creek Schoolhouse)

Setting: Indoors

Opening: Today we are going to practice our spelling skills using the book that was available to students in 1884. It was called the McGuffey Eclectic Speller. We may learn some new words. We will also pay attention to how the words are used in sentences.

Objectives: The students will be able to correctly spell common words.

Materials: McGuffey Eclectic Speller, slate, chalk, slate rags, copybooks.

Background: For this activity we are using spelling materials used in a typical one-room schoolhouse in the 1880's.

Procedure:

11. Select a list of words from McGuffey's Eclectic Spelling Book or from words currently being studied in the classroom.
12. Assign students to copy words and definitions either on slates or in their copybooks and to study each word carefully.
13. Announce there will be a large group activity at the end of the study period using the words in the spelling list.
14. At the end of the study period (15 minutes or so) do the following:



Spelling Bee

Students close their Spelling Books and copybooks or erase their slates. All stand. The teacher reads from the assigned list providing correct sentences for each. In turn, the individual student must correctly spell the word from the list. Anyone who fails to spell a word correctly is “out” and must sit down. He or she does not get another turn. The last students standing when all words have been exhausted are the winners and may be awarded a prize if the teacher so desires.

Closure: During this lesson we practiced our spelling skills. Proper spelling is important in order to get the correct message across to others and it marks you as an educated person who may have something important to say.

Do you think you would be a better or worse speller than you are today if you went to this school with Lutie in 1884? Do any of you help a younger brother or sister with their spelling homework?

Evaluation: The teacher is able to evaluate the students during the spelling bee.

Extensions:

1. How is spelling different today than in Mr. Jones' time? Do you think we use words that little Lutie would not have heard of? What are some examples?
2. Ask the students if they know that many of our words came from the American Indian. Give examples from the following:

Animals

caribou (Micmac)
chipmunk (Ojibwa)
moose (Algonquian)
muskrat (Abenaki)
porgy (Algonquian)
opossum (Algonquian)
woodchuck (Narraganset)
raccoon (Algonquian)
skunk (Algonquian)

Food

squash (Natick)
pecan (Algonquian)
hominy (Algonquian)
pone (Algonquian)
pemmican (Cree)
succotash (Narraganset)

People

sachem (Narraganset)
papoose (Narraganset)
mugwump (Natick)

Things

moccasin (Chippewa)
toboggan (Algonquian)
tomahawk (Algonquian)
wigwam (Abenaki)
tipi (Dakota)
wampum (Massachuset)
hogan (Navajo)
hickory (Algonquian)
kayak (Inuit)
totem (Ojibwa)

Gatherings

potlatch (Chinook)
caucus (Algonquian)
pow wow (Narraganset)

Terrain

bayou (Choctaw)





Places/States

If you look at a map of the United States, you will realize how freely settlers used words of Indian origin to name our states, cities, towns, mountains, lakes, rivers, ponds, and creeks.

Four of our five Great Lakes and 28 -- more than half -- of our states have names that were borrowed from American Indian words. They are:

Alabama -Indian for tribal town, later a tribe (Alabamas or Alibamons) of the Creek confederacy.

Alaska -Russian version of Aleutian (Eskimo) word, alakshak, for "peninsula," "great lands," or "land that is not an island."

Arizona -Spanish version of Pima Indian word for "little spring place," or Aztec arizuma, meaning "silver-bearing."

Arkansas -French variant of Quapaw, a Siouan people meaning "downstream people."

Connecticut -From Mohican and other Algonquin words meaning "long river place."

Delaware -Named for Lord De La Warr, early governor of Virginia; first applied to river, then to Indian tribe (Lenni-Lenape), and the state.

Hawaii -Possibly derived from native word for homeland, Hawaiki or Owhyhee.

Idaho -A coined name with an invented Indian meaning: "gem of the mountains;" originally suggested for the Pike's Peak mining territory (Colorado), then applied to the new mining territory of the Pacific Northwest. Another theory suggests Idaho may be a Kiowa Apache term for the Comanche.

Illinois -French for Illini or land of Illini, Algonquin word meaning men or warriors.

Indiana -Means "land of the Indians."

Iowa -Indian word variously translated as "one who puts to sleep" or "beautiful land."

Kansas -Sioux word for "south wind people."

Kentucky -Indian word variously translated as "dark and bloody ground," "meadow land" and "land of tomorrow."

Massachusetts -From Indian tribe named after "large hill place" identified by Capt. John Smith as being near Milton, Mass.

Michigan -From Chippewa words mici gama meaning "great water," after the lake of the same name.

Minnesota -From Dakota Sioux word meaning "cloudy water" or "sky-tinted water" of the Minnesota River.

Mississippi -Probably Chippewa; mici zibi, "great river" or "gathering-in of all the waters." Also: Algonquin word, "Messipi."

Missouri -An Algonquin Indian term meaning "river of the big canoes."

Nebraska -From Omaha or Otos Indian word meaning "broad water" or "flat river," describing the Platte River.

North & South Dakota -Dakota is Sioux for friend or ally.



Writing



Subjects: Writing, penmanship, spelling and Social Studies.

Grades: 4

Kansas State Curriculum Standards Met: 4th Grade as follows

Writing

- Standard 3, Benchmark 8: Students use standard American English conventions.
- Standard 3, Benchmark 9: Students use a variety of modes of writing for different purposes and audiences.

Social Studies

- U.S. and World History, Benchmark 4: The student engages in historical thinking skills.

Duration: 30-45 minutes

Group size: 18 (the maximum number of students that can fit inside the Lower Fox Creek Schoolhouse)

Setting: Indoors

Opening: Explain the importance of good handwriting in an age without computers. Explain how good handwriting (or penmanship) was required for many jobs, including secretarial and bookkeeping positions. It was often the key to employment. *[This would be a great opportunity to show children examples of handwriting from the 1880s (census records, bibles, etc.).]*

Objectives: The students will be able to use basic writing skills and standard punctuation to communicate effectively.

Materials: Copybook and pencil.

Background: For this activity we are using writing materials used in a typical one-room schoolhouse in the 1880s.

Procedure:

1. Practice penmanship using pencil and copybook by forming the cursive letters e, l, i and t.
2. On the last line write as many words as you can that are spelled with only these letters. What words have you written? Can you spell them for me?
3. Have the students work individually and provide them with a topic. Students must write a story that contains a series of properly places periods and commas, two sets of quotations, two question marks and two exclamation points. Once the project is completed, students trade with one another for peer editing.

Topic: School life in the 1880s



Closure: During this lesson we learned how important penmanship was to school children of the past and how we must use standard punctuation to get your message across.

Evaluation: The teacher is able to evaluate the students by the words used, the spelling, the quality of the handwriting and the ability to effectively communicate the desired message.

Extensions:

1. Have the students discuss whether they think handwriting is more or less important today compared to the 1880s. How do we communicate today that is different from the 1880s?

